

Applicants : Michael Wayne Graham and Robert Norman Rice
Serial No. : 10/759,841
Filed : January 15, 2004
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REMARKS

Claims 172, 176-179, 181-186, 188, 190-193, 195-197, 199-200, 202-205, 207-209 and 211 were pending in the subject application. Applicants have herein amended claims 172, 188, and 200.

Support for the amendments to the claims can be found in the specification as filed at, *inter alia*, page 19, line 14 to page 20, line 22.

Claims Rejected Under 35 U.S.C. § 103(a)

On page 3 of the March 30, 2011 Office Action, the Examiner rejected claims 172, 176-179, 184-186, 188, 190-193, 199-200, 200-205, and 211 under 35 U.S.C. § 103(a) as being unpatentable over Fire et al. (U.S. Patent No. 6,506,559) taken with Cowser et al. (U.S. Patent No. 5,580,767). The Examiner's specific rationale is set forth on pages 3-7 of the March 30, 2011 Office Action.

In response, without conceding the correctness of the Examiner's position and for the purpose of expediting prosecution, Applicants have herein amended claims 172, 188, and 200 to more clearly recite their invention.

The first and second "structural gene sequences" recited by the pending claims are distinct elements from the "stuffer fragment" element because they are separate recited elements of the same claim. See, e.g., *Tandon Corp. v. U.S. Int'l Trade Comm'n.*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) ("There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.") (emphasis added); see also *Gen. Am. Transp. Corp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 770 (Fed. Cir. 1996) (claim terms shall not be construed so as to be "superfluous"). Therefore, "structural gene sequence" (of which

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there are two copies) and "stuffer fragment" must be construed to be distinct elements.

Fire et al. only discloses a "self-complementary" RNA. The term "self-complementary" is an adjective and, in relevant context, provides information about a single RNA strand, but does not provide information about a DNA construct. Specifically, "self-complementary" informs the reader that the single RNA strand has segments of nucleotides that have the ability to hybridize, under appropriate conditions. A self complementary RNA strand is depicted in **Exhibit A** attached hereto. The term "self-complementary" does not inform the reader of, *inter alia*, how many such segments there are; how many nucleotides are in each segment; how many nucleotides in the segment have the ability to hybridize; and whether any different segments are present. The term "self-complementary" also does not indicate whether the single RNA strand is self-hybridized. As shown in **Exhibits A-B**, a self-complementary RNA which is self-hybridized and which forms a hairpin structure usually has a non-hybridized portion termed a "loop." The "loop" results regardless of whether the nucleotides constituting the "loop" are self-complementary or not. Because the "loop" is a single stranded, non-base-paired segment, the "stuffer fragment" element of the currently pending claims cannot be construed to read on "loop." The "stuffer fragment" of the claimed DNA construct is double-stranded, while the "loop" of a hairpin oligonucleotide is not double-stranded. Fire et al. does not teach a stuffer fragment which is distinct from the structural gene sequences and whose nucleotides have a non-repeating sequence as depicted in **Exhibit B**.

Although Applicants consider amendment of the claims unnecessary, in the interest of advancing prosecution Applicants have amended the claims herein such that the claims exclude a stuffer fragment which includes any portion of "the repeating sequence."

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In view of the amendments to independent claims 172, 188, and 200 and the remarks herein, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) over the combination of Fire et al. and Cowsert et al.

Double Patenting Rejections

I. Claims Rejected over U.S. Patent No. 7,754,697 in view of Cowsert et al.

On page 9 of the March 30, 2011 Office Action, the Examiner rejected claims 172, 176-179, 181-186, 188, 190-193, 195-197, 199, 200, 202-205, 207-209, and 211 on the ground of nonstatutory obviousness-type double patenting over claims 1-34 of U.S. Patent No. 7,754,697 in view of Cowsert et al. (U.S. Patent No. 5,580,767). The Examiner's specific rationale can be found on pages 9-12 of the March 30, 2011 Office Action.

In response, without conceding the correctness of the Examiner's position and for the purpose of expediting prosecution, Applicants attach hereto as **Exhibit C** a Terminal Disclaimer signed by an authorized representative of Commonwealth Scientific And Industrial Research Organisation, the sole assignee of record of both the subject application and U.S. Patent No. 7,754,697. In accordance with 37 C.F.R. §1.321(b), the Terminal Disclaimer submitted herewith as Exhibit C specifies the portion of the term of the patent being disclaimed and states the present extent of the assignee's ownership interest in the patent to be granted.

The filing of a Terminal Disclaimer requires a ONE-HUNDRED FORTY DOLLAR (\$140.00) fee as set forth in 37 C.F.R. §1.20(d) and authorization is hereby given to charge the amount of this fee to Deposit Account No. 03-3125.

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II. Claims Rejected over U.S. Serial No. 10/346,853

On page 12 of the March 30, 2011 Office Action, the Examiner provisionally rejected claims 172, 176-179, 181-186, 188, 190-193, 195-197, 199, 200, 202-205, 207-209, and 211 on the ground of nonstatutory obviousness-type double patenting over claims 224-294 of copending Application No. 10/346,853. The Examiner's specific rationale can be found on page 12 of the March 30, 2011 Office Action.

In response, without conceding the correctness of the Examiner's position and for the purpose of expediting prosecution, Applicants attach hereto as **Exhibit D** a Terminal Disclaimer signed by an authorized representative of Commonwealth Scientific And Industrial Research Organisation, the sole assignee of record of both the subject application and U.S. Serial No. 10/346,853. In accordance with 37 C.F.R. §1.321(b), the Terminal Disclaimer submitted herewith as Exhibit D specifies the portion of the term of the patent being disclaimed and states the present extent of the assignee's ownership interest in the patent to be granted.

The filing of a Terminal Disclaimer requires a ONE-HUNDRED FORTY DOLLAR (\$140.00) fee as set forth in 37 C.F.R. §1.20(d) and authorization is hereby given to charge the amount of this fee to Deposit Account No. 03-3125.

III. Claims Rejected over U.S. Serial No. 10/821,726

On page 12 of the March 30, 2011 Office Action, the Examiner provisionally rejected claims 172, 176-179, 181-186, 188, 190-193, 195-197, 199, 200, 202-205, 207-209, and 211 on the ground of nonstatutory obviousness-type double patenting over claims 158-202 of copending Application No. 10/821,726. The Examiner's

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specific rationale can be found on page 12 of the March 30, 2011
Office Action.

In response, without conceding the correctness of the Examiner's
position and for the purpose of expediting prosecution,
Applicants attach hereto as **Exhibit E** a Terminal Disclaimer
signed by an authorized representative of Commonwealth Scientific
And Industrial Research Organisation, the sole assignee of record
of both the subject application and U.S. Serial No. 10/821,726.
In accordance with 37 C.F.R. §1.321(b), the Terminal Disclaimer
submitted herewith as Exhibit E specifies the portion of the term
of the patent being disclaimed and states the present extent of
the assignee's ownership interest in the patent to be granted.

The filing of a Terminal Disclaimer requires a ONE-HUNDRED FORTY
DOLLAR (\$140.00) fee as set forth in 37 C.F.R. §1.20(d) and
authorization is hereby given to charge the amount of this fee to
Deposit Account No. 03-3125.

Applicants believe that all of the rejections set forth in the
March 30, 2011 Office Action have been overcome, and look forward
to receiving a Notice of Allowance in the subject application.